

Title (en)
Heat storage for adiabatic compressed air storage for energy saving purposes

Title (de)
Wärmespeicher für adiabatische Druckluftspeicherung zum Zwecke der Energiespeicherung

Title (fr)
Accumulateur thermique pour le stockage d'air comprimé adiabatique à des fins d'économies d'énergie

Publication
EP 1857614 A3 20090805 (DE)

Application
EP 07105440 A 20070402

Priority
DE 102006022783 A 20060516

Abstract (en)
[origin: EP1857614A2] Large volume heat accumulator consists of two caps placed over one another which possess the form of a perpendicularly standing pipe with rounded caps at the ends. The outside cap represents a pressure cap and the inner cap represents heat resistant cap in which the heat accumulator elements (2) are provided. Within the heat resistant cap an inflow and outflow area, for the air to flow from the underground compressed air accumulator, is arranged under the intermediate cover area and within the heat resistant cap, an inflow and outflow area for air from the compressor, alternatively in the energy generation plant, is arranged under the heat resistant caps in the area above the stack of heat accumulator elements.

IPC 8 full level
E04H 7/20 (2006.01)

CPC (source: EP)
F02C 6/16 (2013.01); **F17C 1/00** (2013.01); **F17C 2201/0109** (2013.01); **F17C 2201/032** (2013.01); **F17C 2201/052** (2013.01); **F17C 2201/054** (2013.01); **F17C 2203/012** (2013.01); **F17C 2203/0329** (2013.01); **F17C 2203/035** (2013.01); **F17C 2203/0383** (2013.01); **F17C 2203/0619** (2013.01); **F17C 2203/0629** (2013.01); **F17C 2203/0631** (2013.01); **F17C 2203/0639** (2013.01); **F17C 2203/0678** (2013.01); **F17C 2205/0184** (2013.01); **F17C 2205/0352** (2013.01); **F17C 2221/031** (2013.01); **F17C 2223/0123** (2013.01); **F17C 2223/035** (2013.01); **F17C 2223/036** (2013.01); **F17C 2225/0123** (2013.01); **F17C 2225/035** (2013.01); **F17C 2225/036** (2013.01); **F17C 2260/032** (2013.01); **F17C 2260/033** (2013.01); **F17C 2260/046** (2013.01); **F17C 2270/0136** (2013.01); **F17C 2270/0581** (2013.01); **Y02E 60/16** (2013.01)

Citation (search report)
• [A] DE 3545622 A1 19870625 - AKTIONSGEMEINSCHAFT M U T E V [DE]
• [A] GB 878615 A 19611004 - GEN ELECTRIC CO LTD
• [A] GB 997882 A 19650714 - ATOMIC ENERGY AUTHORITY UK
• [A] CH 449231 A 19671231 - BONNARD & GARDEL INGENIEURS CO [CH]

Cited by
DE102010028174A1; CN107388027A; US10317008B2; DE102012101862A1; EP2578979A1; EP2578978A1; US10240530B2; EP2578980A1; DE102012108222A1; EP2711600A2; US10233787B2; US10907510B2; US11512613B2; WO2011134537A1; US10280804B2; US11286804B2; EP2530283A1; WO2012163667A1; US9970715B2; DE202011111074U1; DE102013112196A1; WO2014124637A2; US10436109B2; US10830134B2; US11655759B2; EP2599980A2; DE102012102897A1; WO2020114836A1; FR3089595A1; US11982228B2; US10221775B2; DE202011111081U1; US10907548B2; US11578622B2; US9932830B2; US10094219B2; US10801404B2; US10907513B2; US11352951B2; US11761336B2; WO2011098228A2; DE102010023416A1; US9624792B2; US10082104B2; US10082045B2; EP2578981A1; US10233833B2; US10920667B2; US11454168B2; US11927130B2; DE102008050244A1; US11454167B1; US11486305B2; US11578650B2; US11678615B2; US10012448B2; US10288357B2; US10422250B2; US10428693B2; US10428694B2; US10443452B2; US10458721B2; US10458283B2; US11156385B2; US11480067B2; US11754319B2; US11840932B1; EP2574757A1; US9658004B2; US9709347B2; DE202011111077U1; US10458284B2; US10920674B2; US11053847B2; US11371442B2; US11396826B2; US11591956B2; US11885244B2; US12012902B2

Designated contracting state (EPC)
AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IS IT LI LT LU LV MC MT NL PL PT RO SE SI SK TR

Designated extension state (EPC)
AL BA HR MK RS

DOCDB simple family (publication)
EP 1857614 A2 20071121; EP 1857614 A3 20090805; EP 1857614 B1 20100317; AT E461333 T1 20100415; DE 102006022783 A1 20070503; DE 502007003120 D1 20100429; DK 1857614 T3 20100719; ES 2343035 T3 20100721; PL 1857614 T3 20101130; PT 1857614 E 20100622

DOCDB simple family (application)
EP 07105440 A 20070402; AT 07105440 T 20070402; DE 102006022783 A 20060516; DE 502007003120 T 20070402; DK 07105440 T 20070402; ES 07105440 T 20070402; PL 07105440 T 20070402; PT 07105440 T 20070402